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ABSTRACT

Compiled are 61 abstracts of master's theses in environmental education and communications. Three of the these were completed in 1978, 24 in 1977, 15 in 1976, and the remaining 19, prior to 1976. Abstracts are organized into six categories; (1) site analysis: descriptions and development plans for areas to be used for environmental education; (2) parks and camps: users/interpreters: studies dealing with park/camp programs, especially user characteristics and interpretive techniques; (3) media communications: examination of effectiveness of various media; (4) pupil-centered studies: research on attitude change, instructional effectiveness, and learning characteristics; (5) teacher-centered studies: research on training, attitudes, teacher/interpreter behavior; and (6) resources, administration, and other: research on environmental education policy, administration, and philosophy, and studies not appropriate for other categories. Title, author, and institutional source for the entire thesis are provided for each abstract. (JN)

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# *Recent Master's Thesis Work in Environmental Education and Communications*

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**Prepared for the National Association for Environmental Education**
**April 1978**

SE040714

This collection of master's theses abstracts is part of a project sponsored by the National Association for Environmental Education, based at the State University of New York College of Environmental Science and Forestry. We hope that this compilation will serve two functions: first, that it will make recent master's level research available to environmental education professionals who might be able to apply it in their work; and second, that it will help to indicate the current state of graduate education in the field. While many--if not most--aspiring environmental education professionals are pursuing master's degrees, the field is not yet sufficiently organized to say with any certainty what those master's degrees really mean. We hope this collection of abstracts will provide some clues.

We sent letters to 78 graduate departments of environmental education, parks administration, natural history interpretation, environmental studies, communications, journalism, and other potentially related fields, requesting that abstracts concerning environmental education or communications be returned along with thesis reporting forms. The letters were deliberately written to solicit responses from a broad range of fields in which work related to environmental education might be done.

About seventy abstracts were received from a total of sixteen universities. Sixty-one are reproduced in this collection. A few clearly not related to environmental education or communications were not included, but in general, we were very liberal in deciding what material to use.

The letters asked for abstracts completed in the past year; however, this time limit has been ignored in making this collection because many abstracts were received from theses completed before 1977. Three of the theses included in the collection were completed in 1978, twenty-four in 1977, fifteen in 1976, and the remaining nineteen, prior to 1976.

Because the theses range over such a broad span of topics, classification was difficult. For the convenience of readers, the abstracts have been organized into six categories: 1) Site Analysis--descriptions and development plans for areas to be used

for environmental education; 2) Parks--Users and Interpreters--studies dealing with parks, especially user characteristics and interpretive techniques; 3) Media Communications; 4) Pupil-Centered Studies--research dealing with attitude changes, effectiveness of pedagogical techniques, and learning characteristics of pupils; 5) Teacher-Centered Studies--research focussing on the training, attitudes, and behavior of teachers and interpreters; and 6) Resources, Administration, and Others--studies dealing with environmental education policy, administration, and philosophy, as well as some experimental studies which could not be included in the other categories.

This compilation is a first effort. The project requires the suggestions and cooperation of many people. Among other things, we need a more comprehensive list of institutions where master's theses related to environmental education might be done, suggestions for the distribution of results, and suggestions for a more useful categorization of the materials.

Unfortunately, it is not possible in this space to acknowledge individually the assistance given by many persons and institutions to this project. We do, however, want to express our heartfelt thanks.

Dr. David Hanselman

Christopher Yuen

# 1: Site Analysis

National Association for Environmental Education

**Title** AN INTERPRETIVE PROSPECTUS FOR THE CLEMSON EXPERIMENTAL FOREST, CLEMSON UNIVERSITY, SOUTH CAROLINA

**Author** Lynne R. Beeson **Date of Completion** May 1977

**Institution** Clemson University

**Department or Program** Recreation and Park Administration Department

**Thesis Advisor** Dr. Herbert Brantley

**Address of Author** U.S. Army Corps of Engineers, Hartwell Reservoir, Hartwell, GA 30643

**Where Full Thesis is Available** Department of Recreation and Park Administration, Room 263, FRR Building, Clemson University, Clemson, SC 29632

**Abstract** (Single space, this side only)

The Clemson Experimental Forest, 17,356 acres of land once the hunting ground of the Cherokee and the farmland of early settlers, surrounds the campus of Clemson University in the upper South Carolina piedmont. Deeded to the University in the mid-Fifties, the Forest is an outdoor laboratory for many disciplines of the University community. The interpretive prospectus explores and documents the historical significance of the Forest. It establishes an interpretive goal and objectives for the Clemson Experimental Forest, as well as providing insight into major themes of the Forest which can serve to provide visitors with a more rewarding experience. Interpretive methods and tools presented lend themselves to the resource base. The end result of this study is an interpretive prospectus and plan which can be utilized in the future development of the Clemson Experimental Forest, and establish one basis for understanding the valuable potential that is contained within its land base.

National Association for Environmental Education

**Title** The Analysis of the Development of an Interpretive Center Museum To Interpret Environmental Dynamics: A Case Study of the Man, Time and Environment Museum at the Chippewa Nature Center, Midland, Michigan

**Author** Felice (Fel) V Brunett **Date of Completion** December 1977

**Institution** School of Natural Resources. University of Michigan, Ann Arbor, MI 48109

**Department or Program** Environmental Education

**Thesis Advisor** William B. Stapp and Paul Nowak

**Address of Author** 2165 N. River Road, Saginaw Michigan 48603

**Where Full Thesis is Available** from author and U of M School of Natural Resources and Natural Science Library.

**Abstract** (Single space, this side only)

This is a report of a practicum problem dealing with the development of a fifty unit interpretive display including geological and cultural exhibits covering the land area of the nature center and the immediate vicinity.. The report includes all phases of the project including the establishment of goals, defining objectives and understandings for the museum, museum design, constructing the museum, development of the resource manual, identifiable problem areas, evaluation, and guidelines for consideration in implementing other similiar projects. Eleven appendices follow the text. The most valuable of these is probably a copy of the fifty-two page resource manual developed for the museum. The entire report is 175 pages in length.

National Association for Environmental Education

**Title** ENVIRONMENTAL EDUCATION - MORAINE STATE PARK
A Development Plan
**Author** John Patrick Cavanaugh **Date of Completion** 8-13-73
**Institution** Slippery Rock State College
**Department or Program** School of Health, Physical Education & Recreation
**Thesis Advisor** Dr. J. W. Shiner
**Address of Author** 119 McConnell Drive; Butler, Pa. 16001

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

An Environmental Education Center is planned for the Interpretive Education Area at Morraine State Park, Butler County, Pennsylvania. The plan proposes an Educational Area, Management Area, Natural Area and Primitive Area within the Center Complex. Detail plans for facilities, program recommendations and cost estimates are given.

National Association for Environmental Education

**Title** FRESHWATER FISH POND CULTURE AND MANAGEMENT
**Author** MARILYN S. CHAYKOFF **Date of Completion** DECEMBER 1977
**Institution** STATE UNIVERSITY OF NEW YORK COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY
**Department or Program** DEPT. OF MATERIAL SCIENCE AND POLICY
**Thesis Advisor** DR. DAVID HAMILTON
**Address of Author** 5010 Ridgeway Avenue, Rockville, MD. 20852

**Where Full Thesis is Available** Volunteers in Technical Assistance, (VITA), 1706 Rhode Island Avenue, Mt. Rainier, MD. 20822. Publication Number 36E. ($6.50)

**Abstract** (Single space, this side only)

Food supplies in many developing nations cannot keep up with the population growth. Thus, individual governments have begun to institute programs of fish pond culture on a local level to supply food needs. Information on the "how-to" of building and managing fish ponds is lacking in most of these countries. This thesis endeavors to consolidate and simplify all relevant information presently available in fish pond culture world-wide for use by extension workers and farmers in developing countries. The thesis is divided into ten sections that cover planning, construction, management, harvesting, preserving, fish diseases, and other methods of fish culture. It gives all the information needed to plan, construct, and manage a small fish pond to a large-scale fish farm operation. The information is illustrated by pictures and drawings throughout. It is written in very simple English since it is intended for use in areas where English is a second language. This is considered the first in a series of field manuals on fish culture and as such does not intend to be the final word. It is presently being updated and revised inaccordance with suggestions from the field. It has been translated into Spanish and is being translated into French at this time.

National Association for Environmental Education

Title A CONCEPTUAL DEVELOPMENT PLAN FOR A COMMERCIAL OUTDOOR EDUCATION/RECREATION ENTERPRISE IN THE ADIRONDACK MOUNTAINS OF NEW YORK

Author James W. Culp Date of Completion August 1977

Institution Clemson University

Department or Program Department of Recreation and Park Administration

Thesis Advisor Dr. Gordon E. Howard

Address of Author United States Forest Service, Star Route, Walhalla, SC 29691

Where Full Thesis is Available Department of Recreation and Park Administration, Room 263, FRR Building, Clemson University, Clemson, SC 29632

**Abstract** (Single space, this side only)

The purpose of this paper was to lay the conceptual ground work for a commercial outdoor education/recreation enterprise which would be situated in the Adirondack of New York. The function of this enterprise would be two-fold. First, the enterprise would provide guided trips into the back country of the area. Secondly, the enterprise would stress the ideal of the "new ethic" of camping in which man is considered a visitor who makes every attempt to minimize his impact on the area. The conceptual development of the enterprise includes the philosophic ideals and purposes as well as concrete objectives; the programs are delineated and the required equipment and physical plant facilities are described. The applicable legal requirements and estimated financial liabilities are discussed along with the potential sources of capital. The conclusion was drawn that the concept is feasible if funding can be acquired.

National Association for Environmental Education

Title ECOLOGY OF CENTRAL WASHINGTON SEMI-ARID LANDS: A DOCUMENTARY FILM

Author Phillip R. DeBusschere Date of Completion August 1974

Institution Central Washington University

Department or Program Biology

Thesis Advisor Curt Wiberg

Address of Author 1301 Vista Road, Ellensburg, WA 98926

Where Full Thesis is Available Central Washington University Library

**Abstract** (Single space, this side only)

Contrasting vegetation patterns on the west side versus the east side of Washington's Cascade Mountains, due primarily to precipitation distribution, are documented on 16mm sound color film with primary emphasis upon the driest vegetation zone of eastern Washington. Interrelationships of climate, soils, vegetation patterns and animal life are shown for climax types of vegetation and those areas since altered to new habitats due to civilization, water impoundment, fire and grazing. Emphasis is upon the importance of baseline studies of these semi-arid habitats.

National Association for Environmental Education

**Title** Flora and Fauna of Pô National Park, Upper Volta, West Africa.

**Author** Jon F. Heisterberg **Date of Completion** May 1977

**Institution** Purdue University, West Lafayette, IN 47907

**Department or Program** Forestry & Natural Resources

**Thesis Advisor** Russell E. Mumford

**Address of Author** U.S. Fish and Wildlife Service, Kentucky Research Station, 334 15th Street, Bowling Green, Kentucky 42101

**Where Full Thesis is Available** Library, Life Science Bldg., Purdue University, West Lafayette, IN 47907

**Abstract** (Single space, this side only)

During 1972, 1973 and 1974, three methods were used to census the larger mammals of Pô National Park, Upper Volta. These were a strip census, a direct aerial count, and a territory-mapping method. The strip-census data were analyzed by the King method (Leopold, 1933), the Hahn (1949) method, and a variation of the Hahn method based on the average distance at which an animal disappears from sight. The variation of the Hahn method proved to be most applicable to censusing larger ungulates. The direct aerial count was successful for elephant (Loxodonta africana) and buffalo Syncerus caffer). The territory-mapping method (Overton, 1971) proved to be suitable for censusing anubis baboon (Papio anubis).

The population estimates and mean body weight of species were used to estimate the biomass of nine larger herbivores. Combined biomass was estimated at 1995 $kg/km^4$, of which elephants composed 962 $kg/km^2$.

Five vegetation types were differentiated and the species composition of each type described. An investigation of species distribution indicated that fire plays an important role in determining vegetation composition.

Throughout the study, a variety of information on vegetation-wildlife relationships was collected. Vegetation types in which larger mammals were observed are presented. Plants eaten by larger herbivores are listed, with emphasis on woody species preferred by elephants. The association between vegetation on termite mounds and wildlife is discussed. The interaction of fire, vegetation, and larger herbivores is also discussed.

National Association for Environmental Education

**Title** A STUDY OF USER PATTERNS AND MAINTENANCE GUIDELINES FOR THE ALUM CAVE BLUFFS AND CHIMNEY TOPS TRAILS, GREAT SMOKY MOUNTAINS NATIONAL PARK

**Author** Thomas Hallman Fearrington, Jr. **Date of Completion** August 1977

**Institution** Clemson University

**Department or Program** Department of Recreation and Park Administration

**Thesis Advisor** Mr. H. Jesse Grove

**Address of Author** 706 Shadow Brook Drive, Columbia, SC 29210

**Where Full Thesis is Available** Department of Recreation and Park Administration, Room 263, FRR Building, Clemson University, Clemson, SC 29632

**Abstract** (Single space, this side only)

On June 15, 1934, Congress authorized the establishment of Great Smoky Mountains National Park. The concept behind this enabling legislation was to save the remaining virgin forests and the rugged mountains for the enjoyment and inspiration of future generations. In 1976, a record 8,991,500 individuals visited the park. These figures indicate the intense use of the park. The Alum Cave Bluffs Trail and the Chimney Tops Trail are examples of intensively used trails. Heavy use on the Alum Cave Bluffs Trail combined with natural erosion has resulted in the slow deterioration of the trail. In an effort to properly control this impact, maintenance guidelines, as currently applied on the Alum Cave Bluffs Trail, should be revised. The intensity of the trail's use should be an integral factor in the formulation of maintenance guidelines. Numerous natural and historical resources are encountered along the Alum Cave Bluffs and the Chimney Tops Trails. With the significant number of people daily using these trails, there is a need for the National Park Service to develop a pamphlet interpreting these resources. The purpose of this study was to identify and propose needed maintenance improvements along the Alum Cave Bluffs and Chimney Tops Trails in an effort to upgrade the existing condition of the trails; as well as to suggest maintenance procedures to retard future erosion caused by human and natural forces. Strategic sites along the Alum Cave Bluffs Trail, important from a natural and/or historic standpoint, were identified for possible inclusion by the National Park Service in the event that they design and implement an interpretive pamphlet for the area.

National Association for Environmental Education

**Title** AN INTERPRETIVE PROSPECTUS/PARK PLAN FOR REDCLIFFE PLANTATION

**Author** Jeffrey P. McNeill **Date of Completion** May 1977

**Institution** Clemson University

**Department or Program** Department of Recreation and Park Administration

**Thesis Advisor** Mr. H. Jesse Grove

**Address of Author** Clemson University Alumni Relations, Clemson University, Clemson, SC 29632

**Where Full Thesis is Available** Department of Recreation and Park Administration, Room 263, FRR Building, Clemson University, Clemson, SC 29632

**Abstract** (Single space, this side only)

The late John Shaw Billings of Aiken has been praised by the South Carolina Department of Parks, Recreation and Tourism Commission for his donation of historic Redcliffe Plantation. The 250-acre Redcliffe estate was deeded to PRT in 1973, two years prior to Mr. Billings' death. The site, which contains a large plantation home, offers a rich history to be utilized as a park and recreation resource. It will be administered as an historical park within the State Park System. Redcliffe is listed on the prestigious National Register of Historic Places. The two-story white frame structure is representative of the architectural styles in the South during the 19th century. One slave quarter and several other buildings remain, illustrating the pattern of plantation life prior to the War Between the States. The uniqueness of Redcliffe remains in the people who lived there. Their contributions to South Carolina were of great importance and are worthy of consideration as interpretive themes. The prospectus presents the historical significance of Redcliffe to be implemented into the park's interpretive program. It establishes goals and objectives for the park to furnish guidance in its planning and development and presents interpretive themes and methods for providing visitors with a unique and rewarding experience.

National Association for Environmental Education

**Title** THE IDENTIFICATION AND EVALUATION OF SPECIFIED OUTDOOR ENVIRONMENTAL EDUCATION SITES IN EASTERN WASHINGTON

**Author** Richard Niemeyer **Date of Completion** April 1977

**Institution** Central Washington University

**Department or Program** Science Ed.

**Thesis Advisor** John Shrader

**Address of Author** Box 1742, Omak, WA 98841

**Where Full Thesis is Available** Central Washington University Library

**Abstract** (Single space, this side only)

This thesis is a study of twenty-five environmental sites in North Central Washington. The selection of the sites as specific environmental types was based upon a study done by the Environmental Education Department at the State Office of Education.

An evaluation of each site was done. Each site was identified by environmental biotic type and classified according to its human impact condition. Each evaluation included location, description of the site, description of the approach, identifying conditions, and a list of the facilities available.

It was suggested that further studies be done in other parts of Washington.

Environmental Education

Title DEVELOPMENTAL PLAN FOR THE SHENANGO EDUCATION CENTER

Author Daniel Sherwin Date of Completion April 1974

Institution Slippery Rock State College

Department or Program School of Health, Physical Education & Recreation

Thesis Advisor Dr. John Shiner

Address of Author

Where Full Thesis is Available Slippery Rock State College

**Abstract** (Single space, this side only)

An Environmental Education Center is planned for the Shenango Reservoir Area, Mercer County, Pennsylvania. The plan proposes an educational use area and four habitat study areas. Recommendations for a nature center building, camping area trails, outdoor demonstration areas and other environmental teaching stations are given. Programs for resident and day use visitors are included.

National Association for Environmental Education

Title Heartland - a natural history of Onondaga County, N.Y.

Author Mike Storey Date of Completion April 1977

Institution S.U.N.Y. College of Environmental Science and Forestry

Department or Program Environmental Communications

Thesis Advisor Dr. David Hanselman

Address of Author 42 Shepard Ave., Saranac Lake, NY 12983

Where Full Thesis is Available ESF, local (Syracuse area) bookstores, Onondaga Audobon Society, Inc., Box 620, Syracuse, NY, $3.95 + postage

**Abstract** (Single space, this side only)

This is a popularly written book for the general public and educational use concerning the natural history of a distinct political and geographic region in central New York. It was written as a model for other regions and locales to follow as "guide to understanding and preserving a regions' natural/cultural heritage." Heartland was published by the Onondaga Audobon Society and is 102 pages long with 75 photographs, illustrations, and maps, and full-color covers.

Onondaga County, N.Y. has a fascinating natural history and may contain the greatest variety of natural communities of any county in New York State. Geologically, the area contains a rich heritage of glacial topography because of its strategic position during glacial advance and retreat. Many active groups and individuals are interested in preserving land and educating residents about this unique natural heritage.

National Association for Environmental Education

Title "A Freshwater Wetland"

Author Stephen R. Scholla Date of Completion 4/1/78

Institution SUNY College Of Environmental Science & Forestry

Department or Program Environmental Science

Thesis Advisor Dr. David Hanselman

Address of Author 8 White Birch Lane

Scarsdale, NY 10583

Where Full Thesis is Available SUNY C.E.S.F.

Abstract (Single space, this side only)

This thesis is a 16mm color, sound film with support documentation. Entitled "A Freshwater Wetland", it tells the story of a representative freshwater wetland in New York State, from its beginnings 10,000 years ago through the passage of theFreshwater Wetlands Act of 1975.

National Association for Environmental Education

Title THE IDENTIFICATION AND EVALUATION OF APPROPRIATE OUTDOOR ENVIRONMENTAL EDUCATION SITES IN WESTERN WASHINGTON

Author Susan Grunenfelder Wertz Date of Completion July 1974

Institution Central Washington University

Department or Program Science Ed.

Thesis Advisor John Shrader

Address of Author —

Where Full Thesis is Available Central Washington University Library

Abstract (Single space, this side only)

This thesis presents varieties of information regarding appropriate outdoor sites for environmental education in western Washington.

Sites were identified according to environmental biotic type. They were then classified according to technological impact as either pristine, rural or urban.

Each site evaluation includes a brief description of the area, its exact location and approach, the existing facilities and a map showing roads, trails, and landmarks. The evaluation also includes a description of flora and fauna, a geologic or social history of the area, special conditions, alternate sites, related literature and, at times, resource persons.

This information is arranged according to a conceptual model developed by Environmental Planners and Managers Group under the direction of Professor Robert Small, College of Architecture, University of Washington. The model was developed for the Environmental Education Office, Superintendent of Public Instruction in Washington State. Recommendations by the author included use of this material by educators, private citizens, or other groups. Additional research was urged.

# 2: Parks - Users & Interpreters

National Association for Environmental Education

Title A BASIS FOR INTERPRETIVE PLANNING: THE DEMOGRAPHIC AND BEHAVIORAL CHARACTERISTICS OF VISITORS TO THE ELEVEN POINT NATIONAL SCENIC RIVER, MISSOURI

Author Woodward Scott Bousquet Date of Completion 1976

Institution The Ohio State University

Department or Program Natural Resources

Thesis Advisor Dr. Gabriel Cherem

Address of Author

Where Full Thesis is Available Ohio State University Main LIbrary, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

Abstract (Single space, this side only)

My thesis research was a survey of visitor characteristics at the Eleven Point National Scenic River, Missouri. The purpose of the study was to aid the U. S. Forest Service (USFS) on planning interpretive services at the Eleven Point River by determining the demographic and behavioral characteristics of the river's present visitorship.

Interpretive services...executed by Visitor Information Services (VIS) unit. ..., the terms "visitor information services" and "interpretive services" will be used synonymously.

The VIS research...represents only one component of a three-part research project conducted...under agreement between U. S. Forest Service and Ohio Agricultural Research and Development Center. Other...components were: 1) inventory of the Eleven Point River's interpretive resources and story opportunities, 2) recommended interpretive services for visitors to Eleven Point River. The latter recommendations based upon the visitor survey and interpretive inventory. Results...appear in...report to the USFS (Bosquet, 1976).

Note: This work is copyrighted 1976.

National Association for Environmental Education

Title CHARACTERISTICS OF THE VISITORS TO THE ENVIRONMENTAL EDUCATION AREA AT LAND BETWEEN THE LAKES, KENTUCKY

Author Amy Louise Esmond Date of Completion 1976

Institution The Ohio State University

Department or Program Natural Resources

Thesis Advisor Dr. Robert Roth

Address of Author 2029 Wickford Road, Columbus, Ohio 43221

Where Full Thesis is Available Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

Abstract (Single space, this side only)

The purpose of this study was to determine the characteristics of the visitors to the Environmental Education Area at Land Between the Lakes, Kentucky. Data were gathered by means of a survey questionnaire administered to a systematic sample of visitors as they left the Environmental Education Area. Analysis of data revealed that most of the visitors: were between 18-39 years of age; were housewives, professionals, students or laborers; came to the area on vacation with families or groups of friends; learned about the area from a friend; had visited the area before; preferred morning programs, hiking trails and touring of the facilities by themselves; and wanted more trails, exhibits, and demonstrations.

National Association for Environmental Education

**Title** INTERPRETING A MUSEUM EXHIBIT: THE MESSAGE EFFECTIVENESS AND COST EFFECTIVENESS OF ALTERNATIVE AUDIO MESSAGES

**Author** Susan Kay Hambleton **Date of Completion** 1978

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. John Disinger

**Address of Author** 1901 S. Battery Dr., Richmond, Virginia 23222

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 185f Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

The purpose of this thesis was to evalute the effectiveness of interpretive technique as a guide for composing audio messages interpreting a museum exhibit. Both the message effectiveness and cost effectiveness of two audio messages (one composed using interpretive technique as a guide and the other composed without using interpretive technique) was determined.

Results of statistical tests of significance indicated no statisitically significant difference between the audio messages. However, based on the visitors' responses to open-ended questions concerning their reasons for ratings, a trend which supports the use of interpretive tecnique was discovered.

National Association for Environmental Education

**Title** The Origin and Characteristics of Visitors at Selected Publicly Financed Recreation Areas in Indiana.

**Author** Thomas F. Hastings **Date of Completion** August 1977

**Institution** Purdue University, West Lafayette, IN 47907

**Department or Program** Forestry & Natural Resources

**Thesis Advisor** Joseph T. O'Leary

**Address of Author** Dept. of Political Science, Colorado State University, Ft. Collins, Colorado

**Where Full Thesis is Available** Library, Life Science Bldg., Purdue University, West Lafayette, IN 47907

**Abstract** (Single space, this side only)

Increases in recreational use of public lands prompted government interest in outdoor recreation. The Land and Water Conservation Fund (LWCF) made federal matching funds available to states for the expansion and development of outdoor recreation areas. To qualify, states must prepare a State Comprehensive Outdoor Recreation Plan (SCORP).

This research was undertaken to aid in the preparation of Indiana's 1979 SCORP. State expenditures of LWCF have been concentrated in projects at state parks and recreation areas. A license plate survey of vehicles entering twenty-three state operated recreation areas was conducted to determine how the benefits, the pattern of visitor origin, was distributed spatially at each of these areas. In conjunction with the license plate survey, a mail survey questionnaire was distributed; over 5,000, a 25% response rate, were returned. A descriptive profile of the characteristics of visitors to the areas was constructed.

Preliminary analysis of the license plate data indicated that the ratio of in-state to out-of-state visitors varied with each site. The visitation from in-state counties surrounding the recreation areas did not occur with the frequency expected if a county generated visitation in the same proportion as its population was to the population of all the counties in the service area.

The questionnaire survey revealed the characteristics of visitors; their recreation group, age distributions, length of stay, reasons for stopping, activity preference and expenditures.

National Association for Environmental Education

Title System for Measuring Visitor Participation in Interpretive Programs in Indiana State Parks

Author Mary Ellen Herbert Date of Completion May 1974

Institution Purdue University

Department or Program Forestry and Natural Resources

Thesis Advisor Douglas M. Knudson

Address of Author

Where Full Thesis is Available Purdue University

Abstract (Single space, this side only) (Condensed)

This study was undertaken as part of an ongoing attempt to evaluate and improve the interpretive programs in the Indiana State Parks. The over-all objective was to measure the rates of participation in the interpretive programs in two Indiana State Parks during the summer season. Secondary objectives were 1) to test the use of traffic counters as instruments for measuring visitor use of a recreational site, and 2) to test the use of electric-eye counters as instruments for measuring visitor attendance to a nature center.

It was concluded that: 1) Rates of participation in interpretive programs vary with the type of program given; the lowest rates were observed for the naturalist-led hikes, with progressively higher rates for afternoon movies, demonstrations, evening programs, and daily nature center attendance; 2) The number of recreational visitors to a park can be accurately estimated from traffic count data; and 3) Daily museum attendance can be estimated from electric-eye counts.

National Association for Environmental Education

Title INTERPRETIVE OBJECTIVES FROM AUDIENCE EXPECTATIONS AT SELECTED PARKS AND MUSEUMS

Author James Patrick Kranek Date of Completion 1977

Institution The Ohio State University

Department or Program Natural Resources

Thesis Advisor Dr. Gabriel Cherem

Address of Author 1009 Stadium Drive, Columbus, Ohio 43202

Where Full Thesis is Available Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

Abstract (Single space, this side only)

This descriptive study examined audience expectations of interpretive services at selected parks and museums. Audiences were found to expect learning, enjoyment, and relaxation, in that order of importance, for all services. These expectations, together with present policies of the studied services and with contemporary interpretive objectives, were employed to develop objective hierarchies for the studied services.

National Association for Environmental Education

**Title** THE EFFECTS OF AN INTERPRETOR'S NONVERBAL BEHAVIOR ON PARK VISITORS DURING A NATURAL HISTORY PRESENTATION

**Author** Patricia Lee Martinkovic **Date of Completion** 1977

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Gabriel Cherem

**Address of Author** Columbus MetroParks of Franklin County, P.O. Box 72, Westerville, Ohio 43801

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

Within the field of interpretaion, there is an abeance of formal research focused upon the the presentational techniques of the interprator and their effect upon the visitor. My research will evaluate the effects of an interpretor's presence or lack of presence ot a natural history presentation and an interpretor's use of positive and neutral nonverbal behaviors will be measured in terms of the visitor's emotional response and his immediate recall. .....

.... Three practical applications of this research might be:

1. Intrepretors could implement positive nonverbal behavior to improve not only their talks, but to improve their guided hikes and daily interaction with visitors in an interpretive setting.
2. Positive nonverbal behavior could be taught during in-service training sessions for intrepretors.
3. The effects of nonverbal behaviors could be presented to students enrolled in interpretation courses at school.

Note: This work is copyrighted 1977.

National Association for Environmental Education

**Title** ACTIVE LANGUAGE IN INTERPRETIVE TRAIL SIGNS AND RULES LEAFLETS: ITS EFFECTS ON VISITOR ENJOYMENT AND INFORMATION RETENTION

**Author** Nancy J. Moeckel **Date of Completion** 1977

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Gabriel Cherem

**Address of Author** 1026 S. Locust, Oxford, Ohio 45056

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

...Based on the [above ideas], the following research hypothesis was formulated: active language style is a better tool to use in preparing trail signs and rules leaflets than is a passive language style. In relation to this hypothesis, the specific objectives of the study are:

1. To determine if visitors find an active language style more enjoyable to read than a passive language style.
2. To determine if visitor's immediate information recall will be more accurate and more complete when they read information written in an active language style than when they have read the same information written in a passive language style.

National Association for Environmental Education

**Title** A Survey of Resource Materials for Environmental Interpreters

**Author** Gary W. Mullins **Date of Completion** May 1975

**Institution** Texas A&M University, College Station, Texas

**Department or Program** Recreation and Parks Department

**Thesis Advisor** Dr. Carlton S. Van Doren

**Address of Author** Y-3-D Hensel Apartment, College Station, Texas 77840

**Where Full Thesis is Available** from Sterling Evans Library, Texas A&M University

**Abstract** (Single space, this side only)

Environmental interpretation is an emerging profession. Expansion is primarily due to the heavy emphasis placed upon environmental education programs and the increased number of park visitors. To determine how written materials aid this profession, a three-part problem was identified. The survey was conducted to compile and evaluate interpretive reference data, identify areas with insufficient professional publications and research, and probe the technical reading habits of environmental interpreters.

The data were collected through the use of two questionnaires. The first was mailed to 350 randomly selected members of either the Association of Interpretive Naturalists or the Western Interpreters Association. The second questionnaire was sent to two evaluation panels totaling thirty interpreters.

Information gathered through the first questionnaire provided reference data in 13 interpretation-related categories for the development of a list of resource materials for interpreters.

Respondents also indicated there is an insufficient amount of professional literature and interpretive research. Thirty-two topics were recommended as subjects for professional publications; interpretive techniques and evaluation of program effectiveness were listed most often. Evaluating program effectiveness and determining attitude change were listed most often as subjects in need of interpretive research.

An analysis of the data collected on interpreters' technical reading habits revealed they read about the same amount as do scientists and resource managers. Approximately three-fourths of both groups spend up to five hours per week on the job reading technical literature, and two-thirds spend a similar amount of time in off-the-job technical reading.

National Association for Environmental Education

**Title** Criteria for the Development of Interpretive Nature Trails for the Visually Impaired

**Author** Jonathan R. Schwartz **Date of Completion** 6-76

**Institution** State University of New York, College of Environmental Science & Forestry

**Department or Program** Environmental Communications

**Thesis Advisor** Dr. David L. Hanselman

**Address of Author** 66 Parsons Drive West Hartford, CT 06117

**Where Full Thesis is Available** Moon Library, SUNY Environ. Sci. & Forestry

**Abstract** (Single space, this side only)

The objectives of the investigation were to (a) identify what has been done in the past in the way of nature trail design for the visually impaired, (b) compare this with what professional workers for the visually impaired consider important in the design of the facilities, and (c) provide guidelines for the design of future trails for the visually impaired.

Two national surveys were used: One was sent to all nature centers listed in the National Audubon Society's 1975 Directory of Nature Centers as having programs for the handicapped to determine what facilities presently exist. The other was sent to all permanently certified Orientation and Mobility Instrucors for the Visually Impaired who reside in the United States. It was not possible to directly contact a large sample of visually impaired persons, and it was felt that these workers for the visually impaired could provide guidelines for future trails.

As a reult of all research, the following suggestions were made for the design of future trails: No special trails should be established, as these tend to isolate the visually impaired from the rest of the visitors. All trails should be clearly differentiated from the surrounding environment so that the visually impaired can use residual sight or proper mobility techniques for travel -- ropes are unnecessary and often vandalized. Special pavement is not needed. Railing should be provided at hazardous areas only. Interpretation should be offered through the use of portable cassette tape players, and booklets for the hard of hearing

National Association for Environmental Education

**Title** The Function of Interpretation as Perceived by Park Visitors and Interpreters.

**Author** Valeen Adams Silvy **Date of Completion** August 1977

**Institution** Texas A&M University

**Department or Program** Recreation and Parks Department

**Thesis Advisor** Dr. Neil H. Cheek, Jr.

**Address of Author** RR 4-6|A, Bryan, TX 77840

**Where Full Thesis is Available** Library, Texas A&M University, College Station, TX 77843

**Abstract** (Single space, this side only)

Park visitors and interpreters in the Texas State Parks were surveyed during the summer of 1976 to determine the perceptions of the function of interpretation. Literature in the field reflects managerial and academic perception, but little is available about the visitor participating in this activity.

Fifteen interpretive programs were sampled in each of the three park types: historic, scenic and recreational. Three hundred and seventy visitors and 37 interpreters participated in the study. Questionnaires were distributed to all visitors attending the interpretive program sampled. Interviews were conducted with all available interpreters in each park sampled.

Analysis revealed that visitor perceptions of the function of interpretation differed when measured by park type, reason for visitation to the park, reason for attendance at the program and past attendance at programs. A difference in perceptions was not found when dividing visitors according to the social group in which they attended the program.

Visitors and interpreters differed in their perception of the function of interpretation. This was supported when dividing visitors and interpreters according to park type and reasons for attendance to programs.

This study increased the understanding of visitor perceptions of the function of interpretation and indicated that interpreter understandings of these perceptions were not always accurate. Awareness and understanding of the variables investigated will enhance interpreter responsiveness to the visitor clientel.

National Association for Environmental Education

**Title** AN ANALYSIS OF SELCTED PARK VISITOR MOTIVATIONS FOR ATTENDING ENVIRONMENTAL INTERPRETATION PROGRAMS

**Author** John A. Veverka **Date of Completion** 1978

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Gabriel Cherem- Dr. Kenneth Wenner

**Address of Author** 356 East 14th Avenue, Apt. 4, Columbus, Ohio 43201

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

The major objectives of this research were to find out what motivates a park visitor to select a particular interpretive program, topic, or mode (such as a slide show, hike, or live demonstration) and what motivates them to actually attend as interpretive program.

Two different groups of park visitors at an Ohio State Park were surveyed. First, visitors camping in Class "A" camping area of the park were randomly selected and given a questionnaire asking them to state their preferences for interpretive program topics and modes listed on the questionnaire and then state why (motives) they made each selection that they did.

The second survey involved visitors actually attending an interpretive prgram in the park. Visitors attending slide shows, hikes, and live demonstrations were randomly selected and asked to state, specifically, why they chose to attend "this particular program".

Correlations between the visitors sex and age groups with their stated motives for actually attending a program were examined.

National Association for Environmental Education

**Title** VISITOR ANALYSIS AT THE CICINNATI ZOO WITH IMPLICATIONS FOR INTERPRETIVE PLANNING

**Author** Jill Rae Willis **Date of Completion** 1977

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Gabriel Cherem

**Address of Author**

**Where Full Thesis is Available** Ohio State University Main LIbrary, Special Materials, 1858 Neil Ave., Columbus,Ohio 43210

**Abstract** (Single space, this side only)

The purpose of this thesis was to illustrate how visitor analysis at an interpretive sitw could be used in interpretive planning for that site. Specifically, the Peart and Woods interpretive planning model was used as the framework within which a visitor survey for the Cincinnati Zoo was conducted.

The Cincinnati Zoo is perceived quite favorably by a major potion of the visitors. Animal display are s were ranked according to l: vel of enjoyment and major reasons for positive display selection were: 1) the animals themselves, 2) naturalness of display, 3) animal activity, and 4) visitor/animal contact. The major problem area brought tc light from the survey was the need tor more and better visitor orientation.

Recommendations for interpretive planning at the Cincinnati Zoo were formulated from the visitor survey conclusions.

# 3: Media Communications

National Association for Environmental Education

**Title** Communication Characteristics and Knowledge Levels of Selway-Bitterroot Wilderness Users

**Author** Willian Wales Bramlette **Date of Completion** 1977

**Institution** University of Idaho

**Department or Program** Wildland Recreation Management

**Thesis Advisor** Dr. James R. Fazio

**Address of Author** U. S. Forest Service

Mammoth Lakes, California 93546

**Where Full Thesis is Available** University of Idaho Library

**Abstract** (Single space, this side only)

The primary objective of this study was to identify selected communication characteristics of wilderness recreationists. A knowledge of these characteristics should aid in the development of educational programs as protective measures (both social and physical) in the management of the wilderness resource and wilderness recreation.

A sample of 601 users was taken during the 1976 heavy-use season in the Selway-Bitterroot Wilderness to: (1) measure relative wilderness knowledge levels of visitors by various user categories; (2) identify commonly used sources and channels of communication; and (3) reveal visitors' pertinent communication patterns with sources outside the immediate wilderness situation.

Environmental Education

**Title** A Q-Study of Reader Attitudes Toward Conservation and Content for Missouri Conservationist Readers

**Author** Gary D. Fitzgerald **Date of Completion** 1976

**Institution** University of Missouri

**Department or Program**

**Thesis Advisor** Keith P. Sanders

**Address of Author**

**Where Full Thesis is Available** (Abstract obtained and condensed from Journalism Abstracts)

**Abstract** (Single space, this side only)

The research was conducted from June to mid-September of 1975. The Q-sort included a total of forty-seven persons; forty-one were acceptable for interpretation. Five conservation attitude types were found in this study of the Conservationist readership.

These factor types were represented by a diverse goal oriented group and some special interests. The "Goal Oriented Conservationists" (I) held a protectionist attitude that they had an obligation to build more wildlife and recreation areas. The "Recalcitrant Farmers" (II) fitted the rugged but beneficient image of a farmer, or landowner, who most strongly believed in the rights of the property owner. The "Rational Conservationists" (III) were persons (here sportsmen) who saw "self-reliance" in nature and tended to take its bounty for granted. The "Environmentalists" (IV) had a cosmopolitan orientation on conservation issues, but they may overlook local ones.

The "Professional Conservationists" (Conservation Department personnel--V) believed in building for the next generation; they thought that everyone has a responsibility to contribute to conservation efforts. Only the professionals strongly thought industry was a major conservation problem; other-factor types thought the public, or segments within it, were to blame for conservation, or land use, problems.

Attitudes toward the magazine's content--determined along Q-technique lines--produced three factors; most persons were on one of two factors. The "Open Outdoorsperson" (M-I) was looking for the editorial theme of everybody pulling together for conservation. The "Conservative Sportsman" was interested in the success of the sportsman but not necessarily in a descriptive Outdoor Life style. Both wanted simple but sophisticated information about sporting events, or nature, and about how to avoid the crowd.

National Association for Environmental Education

Title Attitudes and Information Sources of Hunters Toward Waterfowl Lead Poisoning and the Use of Non-Toxic Shot

Author Donald W. Floyd Date of Completion 1976

Institution University of Wisconsin

Department or Program Environmental Communications

Thesis Advisor Eugene Kroupa

Address of Author 14104 Hemlock, Trona, CA 93562

Where Full Thesis is Available University of Wisconsin

Abstract (Single space, this side only) This thesis examines information sources and attitudes of certain Wisconsin hunters about waterfowl lead poisoning and the use of iron (soft steel) shot as a non-toxic replacement for lead shot.

Survey questionnaires were mailed to 340 Wisconsin waterfowl hunters. Eighty-four percent of the questionnaires were returned. One-half of the sample had purchased iron shot from the Wisconsin Department of Natural Resources. The other half was composed of Horicon Zone goose permit holders that had used lead shot. Comparisons of attitudes, knowledge and information seeking activities were made between the two groups.

Iron shot users were more likely to be better educated, members of conservation organizations, and more accurate on knowledge questions than lead shot users. Fifty-three percent of the iron shot users said they would use iron shot for a second season.

Both groups rated mass media, resource management agencies, and personal contacts in about the same order of importance as sources of information about lead poisoning and non-toxic shot. Iron shot users were much more likely to seek information from several sources.

National Association for Environmental Education

Title Environment: Covering the Urban Milieu

Author Robert J. Griffin Date of Completion August 1977

Institution University of Wisconsin

Department or Program Journalism and Mass Communications

Thesis Advisor Prof. Clarence A. Schoenfeld

Address of Author University of Wisconsin - Rock County, 2909 Kellogg Ave., Janesville, WI 53545

Where Full Thesis is Available Memorial Library, University of Wisconsin, Madison, WI, 53706

Abstract (Single space, this side only)

Among the central themes of Earth Day was to make the traditionally rural foci of environmental concern relevant to the city dweller. The growing awareness of the pertinence of urban and social matters to environmental problems, and vice-versa, expanded the definitional scope of "environment" to a degree of ambiguity that perturbed editors and reporters on daily newspapers. Later, the "energy crisis" further complicated the definition of the environmental beat.

This study examines the relationships among the degree of urban pluralism, the structure of the environmental beat, and dimensions of reportorial news judgment. Description of variance in reporters' roles is based on the conflict-consensus information processing model developed by Tichenor, Donohue and Olien. Variance in environmental news coverage, news judgment, and perceptions of "the environment" was tapped through a factor-analyzed battery of hypothetical news items and open-ended questions regarding the reporters' main approaches to covering environment and their perceptions of significant local environmental problems. The questionnaire, mailed in 1974 to a sample of reporters who cover environment for daily newspapers in the United States, also tested matters such as the distribution of environmental and energy coverage on news staffs.

Analysis determined that environmental coverage and perceptions vary along the traditional "resource use" and "nature observation" dimensions, as well as along a dimension of urban associations. The structure of the environmental beat varies according to the pluralism of the locale, the level of specialization and the "social feedback" orientation of the reporters' roles. Among beat reporters in large cities, a high social-conflict orientation to the environmental beat coincides with greater integration of energy and environmental coverage. An agenda-setting study is called-for, testing the potential effects of environmental news coverage on audience perceptions of what constitutes "the environment."

Title SUPPLEMENTARY ENVIRONMENTAL EDUACATIO READING PROGRAM: As a Motivating Technique to Improve Reading Comprehension

National Association for Environmental Education

Author Sandra Terndrup Aimonetti Date of Completion April 1975

Institution Slippery Rock State College

Department or Program School of Health, Physical Education & Recreation

Thesis Advisor Dr. Craig C. Chase

Address of Author

Where Full Thesis is Available Slippery Rock State College

Abstract (Single space, this side only)

Four months of a supplementary environmental education reading program was given to one class of sixth grade students to determine if there was an increase in reading comprehension. The pre-post tests did not significantly increase at the .05 level; though it was a motivating technique for may children.

Title A Study of the Relationship Between Superstition and Perception of the Natural Environment Among Children in Marion, Indiana.

National Association for Environmental Education

Author Sam P. Carman Date of Completion 7/22/77

Institution Ball State University

Department or Program Natural Resources

Thesis Advisor Dr. Charles O. Mortensen

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Swayzee, IN 46986

Where Full Thesis is Available Ball State University Library

Abstract (Single space, this side only)

A questionnaire was administered to fourth grade, seventh grade, and high school students in Marion, Indiana to attempt to determine the following: 1) To what extent will grade levels that appear to be highly superstitious show favorable response to questions concerning their feelings toward the natural environment or nature-related activities? 2) To what extent will grade levels that appear to have little or no belief in superstitions show favorable response to questions concerning their feelings toward the natural environment or nature-related activities? 3) To what extent will the superstitiousness of any particular school grade level(s) differ from the superstitiousness of any other school grade levels used in this study?

Results of this research indicate that the fourth grade students surveyed differed significantly from students of the seventh and tenth-twelfth grade levels in both superstitiousness and in their feelings toward the natural environment. Fourth grade students were found to be more superstitious about nature and have more negative feelings toward the natural environment than either of the other experimental groups studied. It was further found that with fourth grade students a negative correlation exists between superstitiousness and feelings toward the natural environment.

National Association for Environmental Education

**Title** PRIOR MEMBERSHIP IN OUTDOOR-ORIENTED ORGANIZATIONS: ITS RELATIONSHIOPTO ENVIRONMENTAL ATTITUDES IN YOUNG ADULTS

**Author** Richard A. Ellis **Date of Completion** 1976

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. John Disinger

**Address of Author** Division of Environmental Planning, Tennessee Valley Authority, Chattanooga, Tenn.

**Where Full Thesis is Available** Ohio State University, Special Materials, Main Library 1858 Neil Avenue, Columbus, Ohio 43210

**Abstract** (Single space, this side only)

This study sought to determine whether prior membership in the Girl Scouts, Boy Scouts, and 4-H related to favorable environmental attitudes, and whether prior members of these groups demonstrated significantly higher measures of these attitudes than non-members. The sample was comprised of 166 students from the College of Education of the Ohio State University. The instrument selected for the measurement of environmental concern was the Syracuse Environmental Awareness Test, Level III, Form D. In addition, a personal data questionnaire was utilized. Statistical analysis of the data found that no significant differences existed between the scores of prior members and prior non-members. No significant correlation was found to exist between duration of prior membership and attutude scores for the study population. On the basis of this study, prior membership in the specified youth organizations would appear to be of little consequence in the identification ofindividuals bearing environmental attutudes more favorable than the general population.

National Association for Environmental Education

**Title** THE EFFECTS OF A SIMULATION GAME ON THE ATTITUDES OF COLLEGE ~~STUDENTS ENROLLED IN AN ENVIRONMENTAL MANAGEMENT~~ COURSE

**Author** JAmes Michael Heilman **Date of Completion** 1972

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Robert Roth

**Address of Author** 1105 Ayres Pike, New Carlisle, Ohio 45344

**Where Full Thesis is Available** Ohio State University MAin Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

A project was undertaken during the Fall and Spring Quarters of the 1971-1972 academic year at The Ohio State University to develop a simulation game that could be used to help achieve the objectives of Natural Resources 201, an introductory environmental management course. The simulation game developed was based pon the use of a large sandbox.

The course was designed to encourage students to:

1. Become knowledgeable about the interrelated biophysical and sociocultural environments of which man is a part;
2. Become aware of environmental problems and manegement alternatives of use in solving these problems; and,
3. Develop a basis for intelligent individual attitude formation and provide motivation for constructive decision making in the ,aintenance and further development of diverse environments that are optimum for living. (Roth, 1969)

One of the problems of this project was to evaluate the usefulness of the simulation game in acheiving the course objectives. An attitude instrument developed by Bowman (1972) was used to compare the simulation gane technique to the other types of teaching methodologies utilized in Natural Resiurces 201.

National Association for Environmental Education

**Title** A STUDY OF THE SIXTH GRADE ENVIRONMENTAL EDUCATION PROGRAM IN HERKIMER COUNTY, NEW YORK

**Author** Joseph R. Lindenmayer **Date of Completion** July 1972

**Institution** Slippery Rock State College

**Department or Program** School of Health, Physical Education & Recreation

**Thesis Advisor** Dr. Craig C. Chase

**Address of Author**

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

A pre-post test of conservation attitudes was used with a sixth grade class of students in Herkimer County, New York. One-half of the class of eighty-four participated in the county-wide conservation education program; one-half did not. The pre-post test showed a significant difference in the group attending the program over the group not attending at the alpha .05 level on the F scale. The pre-post test showed no significant difference between the two groups by sex or by their membership of non-membership in 4-H, Scouts, Grange, or Campfire Girls.

National Association for Environmental Education

**Title** AN EVALUATION OF ENVIRONMENTAL EDUCATION ATTITUDE CHANGES OF STUDENTS IN SEVENTEEN FIFTH GRADE CLASSES IN FOX CHAPEL AREA SCHOOL DISTRICT, PITTSBURGH, PENNSYLVANIA, BASED ON ONE-WEEK RESIDENTIAL EXPERIENCE

**Author** David Porterfield **Date of Completion** August 1972

**Institution** Slippery Rock State College

**Department or Program** School of Health, Physical Education & Recreation

**Thesis Advisor** Dr. Craig C. Chase

**Address of Author**

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

Attitude tests were taken before and after a one-week environmental education residential experience by 183 girls and 214 boys in the fifth grade. For the entire group, there were significant differences between the pre and posts for the total test and for each of the subtests: general environment, education, pollution, and socialization. Significant differences appeared for the various subgroupings of students as follows: 1) the sexes: education and socialization subtests; 2) Scouts: pollution subtest; 3) weeks of attendance; total test and general environment, education, and socialization subtests; 4) schools: total test and general environment, education, and socialization subtests. The means for the following subgroupings showed no significant differences for the total test nor for any subtest: Junior Rangers and scholastic achievement levels.

National Association for Environmental Education

**Title** An Evaluation Of Environmental Attitudes Developed in a Graduate Methods Class as Compared to an Undergraduate Methods Class

**Author** Nancy Roberts Porterfield **Date of Completion** August 1972

**Institution** Slippery Rock State College

**Department or Program** School of Health, Physical Education & Recreation

**Thesis Advisor** Dr. Craig C. Chase

**Address of Author**

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

Three weeks of school site environmental education training were given to one class of students in "Problems in Elementary School Science Instruction," a graduate science methods class, and four classes of "Science in the Elementary Grades," an undergraduate science methods class. The pre-post tests showed significance for both the graduates and undergraduates at the .05 level. There was no significant difference in gain related to the years of teaching experience of graduate students. There was no significant difference between graduate students' gain and undergraduate students' gain.

National Association for Environmental Education

**Title** ENVIRONMENTAL ATTITUDES OF SIXTH GRADERS AFTER THE INTEGRATION OF ENVIRONMENTAL EDUCATION INTO THE LANGUAGE ARTS CURRICULUM

**Author** Jane S. Robbins **Date of Completion** October 1974

**Institution** Slippery Rock State College

**Department or Program** School of Health, Physical Education & Recreation

**Thesis Advisor** Dr. Craig C. Chase

**Address of Author**

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

Environmental education was incorporated into the language arts program of four sixth grade classes in the form of activities designed to enhance the communicative arts while focusing on environmental awareness and examination of environmental concepts and values. Attitude tests were given near the opening and close of the school year to the four classes (97 students) of the experimental sample and to four regular language arts classes (82 students) as a control sample. The attitudes toward the environment of the control group and experimental group both improved significantly at the .01 level during the year, as indicated by the test as a whole. In comparison with the control group mean, the experimental group mean was significantly higher at the .01 level in the education subdivision. No significant differences were indicated between experimental and control group means for the total test of for the pollution, general environment, and socialization subdivisions.

National Association for Environmental Education

**Title** The Effectiveness of Slide presentations and field trips as Methods of Intruction for Environmental Education

**Author** Robert Warren Schneider **Date of Completion** 1976

**Institution** University of Arizona

**Department or Program** School of Renewable Natural Resources

**Thesis Advisor** William W. Shaw

**Address of Author** 333 S. Waterman Ave, El Centro Calif, 92243

**Where Full Thesis is Available** University of Arizona

**Abstract** (Single space, this side only)

The purpose of this study was to compare the effectiveness of slide presentations and field trips as methods of instruction for environmental education.

Two identical one-hour environmental education programs were developed; one using a field trip and the other a slide presentation. Sixteen sixth grade classes were given the presentations. Teaching method effectiveness was measured through the use of a multiple-choice test, divided into a pretest and posttest, which was designed to sample selected cognitive learning objectives. A second research problem was to examine differences in the methods as related to their ability to elicit responses from the classes and provide a source of information which would measure the methods' potentials for teaching certain affective learning objectives.

The first research problem was analyzed using analysis of covariance in which class mean pretest scores were used to statistically control for pretreatment differences between classes. The results indicate that both methods are equal in effectiveness and superior to providing no instruction. The second problem was evaluated using chi-square analysis in which the number of responses for each treatment type was compared. Findings indicate that the field trip significantly increased students' willingness to respond.

National Association for Environmental Education

**Title** ATTITUDINAL CHANGES AS A RESULT OF OUTDOOR EXPERIENCES

**Author** Nancy Lower Sheetz **Date of Completion** 1976

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Carl Johnson

**Address of Author** 3903 Chanderlersville Rd., Zanesville, Ohio 43701

**Where Full Thesis is Available** Ohio State University Main Library, Special MAterials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

[As previously stated] the continued existence of man depends upon the attitude of the public and particularly of our youth. Therefore it is necessary to determine if outdoor experiences produce change in the attitudes of the participants.

A section of sixth grade students at Finland Middle School were going to spend a week at the Mohican Outdoor School. Before the students who participated in the outdoor experience left for Mohican all of the students took a pretest. The test consisted of five categories; the students ranked the statments 1 through 4, with 1 being the most important and 4 the least important. After the students returned the post test was adminstered to the entire group.

The test group consisted of the those students going to Mohican, the control group were those who remained in the classroom. The control group was chosen because both groups were in the same grade, same school and had the same teachers during the the school year, and would not differ in prior input in school philosophy or concepts relating to outdoor education.

**Title** STUDENT ATTITUDE CHANGE AS A RESULT OF THE PRESENTATION OF MATERIALS REPRESENTING VARIOUS OPINIONS ON STRIP MINING

National Association for Environmental Education

**Author** Terry L. Wilson **Date of Completion** 1975

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. John Disinger

**Address of Author** Consultant for Environmental Education,
Kentucky Dept. of Education, Capital Plaza Towers, Frankfort, Ky. 40601

**Where Full Thesis is Available** Ohio State University Main Library,
Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

The purpose of this study is two-fold. First is the development of a set of materials representing a spectrum of possible opinions on environmental issue. For this study the tppic of strip mining was chosen since it is clearly a controversial issue and all sides can be well supported by documented material. [As mentioned before] the set is designed to be used by the teacher as a miniature resource library from which to create discussion, debate, and inquiry into the subject.

With development completed, the second important portion in the study was undertaken: testing effectiveness of the materials on a sample of ninth grade students. The results of this type of exprtiment provides empirical information relative to attitude change and. with the development of the set of materials on strip mining, a product is created which can be utilized in the classroom.

# 5: Teacher-Centered Studies

National Association for Environmental Education

**Title** A STUDY OF FACTORS IMPORTANT TO ENVIRONMENTAL (CONSERVATION-OUTDOOR) EDUCATION INSTRUCTION

**Author** WANDA KAY BUTERBAUGH **Date of Completion** May,1970

**Institution** Slippery Rock State College

**Department or Program** School of Health, Physical Education & Recreation

**Thesis Advisor** Dr. J. L. Shiner

**Address of Author**

**Where Full Thesis is Available** Slippery Rock State College

**Abstract** (Single space, this side only)

STATEMENT OF THE PROBLEM:

To isolate knowledge and skill concepts deemed necessary for teachers on both elementary and secondary levels to enable them to teach for environmental (conservation-outdoor) education.

PROCEDURE:

A mailed questionnaire was forwarded to leaders i the field of environmental education and related areas. The mailed questionnaire elicited the respondents' opinions concerning five questions: program emphasis, required courses, in-service teacher education, knowledge and skill competency levels, and general state of teacher preparation in environmental education.

CONCLUSIONS:

Undergraduate Program

1. The undergraduate program of teacher education should include one or two courses in the area of environmental education.
2. All prospective teachers should have an adequate understanding of the following areas of knowledge:
   a. Biological science: biology, botany, history and philosophy.
   b. Environmental education: concepts, history, and philosophy.
   c. Conservation education: concepts, history and philosophy.
3. Integrated or interdisciplinary approach to environmental (conservation-outdoor) education is best provided as a part of courses in biology, history, geography, political sciences, and natural resources.
4. Greater emphasis should be placed on environmental education in elementary teacher preparation curricula.

Environmental Education

**Title** ASSESSMENT OF CURRENT ADMINISTRATIVE TRAINING OF CHIEF INTERPRETERS IN A SIX-STATE REGION

**Author** REBECCA HASERODT **Date of Completion** MARCH, 1977

**Institution** THE OHIO STATE UNIVERSITY

**Department or Program** SCHOOL OF NATURAL RESOURCES, DIVISION OF PARKS AND RECREATION ADMINISTRATION

**Thesis Advisor** DR. KENNETH A. WENNER

**Address of Author** 2080 NEIL AVENUE

COLUMBUS, OHIO 43210

**Where Full Thesis is Available** THE OHIO STATE UNIVERSITY MAIN LIBRARY

**Abstract** (Single space, this side only)

The goal of this study was to determine administrative training required for today's environmental and historical interpreters. Chief interpreters in Indiana, Kentucky, Michigan, Ohio, Pennsylvania and West Virginia were mailed questionnaires concerning present job responsibilities, work experience, and academic and administrative training. Interpreters were found to allocate approximately one-third of their time to conducting and planning programs with the remaining time devoted to administrative responsibilities. From this data it has been recommended that students seeking interpretive careers be exposed to basic administrative concepts at the undergraduate level and obtain in-depth training at the graduate level.

National Association for Environmental Education

**Title** A STUDY OF THE FEASIBILITY OF ESTABLISHING AN ENVIRONMENTAL EDUCATION CENTER FOR THE COLUMBUS PUBLIC SCHOOLS

**Author** Steven C. McCaw **Date of Completion** Spring 1977

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Carl Johnson

**Address of Author** Metropolitan Educational Program Agency, Riverview School, 2407 Chandler Road, Bellevue, Nebraska 68005

**Where Full Thesis is Available** Ohio State University Main LIbrary, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

The purpose of this thesis was to obtain a determination of what extent Columbus Public School teachers are doing environmental education activities, what priorities they place upon those activitites, and their intentions to use an environmental education center, if developed. Included is a budget and management plan for that center.

The principle conclusions of this thesis are:

1) Elementary teachers have more positiv attitudes toward and are performing more environmental education activities than are secondary teachers.

2) School principles are generally positive toward these avtivities.

3) Special education teachers are doing the most environmental education activities, both on the school site and at study trip sites.

National Association for Environmental Education

**Title** FACTORS WHICH INFLUENCE ELEMENTARY TEACHERS USE OF THE OUT-OF-DOORS

**Author** George D. Mirka **Date of Completion** 1970

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Carl Johnson

**Address of Author**

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, OHio 43210

**Abstract** (Single space, this side only)

The purpose of this study is to determine some of the factors that cause teachers to use or not to use the out-of-doors in their teaching. The hypothesis for this study is that the factors that most influence elementary school teachers in thier use of the out-of-doors are their knowledge of the natural sciences and their knowledge of how to teach outdoors.

National Association for Environmental Education

**Title** THE DEVELOPMENT OF A MASTERS LEVEL ENVIRONMENTAL EDUCATION PROGRAM FOR GLEN HELEN AT ANTIOCH COLLEGE

**Author** Ralph Emerson Ramey **Date of Completion** 1976

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Robert Roth

**Address of Author**

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

Existing literature regarding the education of environmental educators at the masters level was examined, along with the instutional arrangements of Antioch College and its present programs at Glen Helen. A proposal is made for the establishment of a new Graduate Center for environmental Education to be located at Glen Helen under the auspices of the college's Graduate School of Education to offer a Master of Science Teaching (MST) degree in environmental education. A curriculum is proposed that offers instructional and interpretive options and a schedule of study and descriptions of courses are given to support the curriculum. The proposed twelve-month program includes a strong outdoor education element, basic environmental education core courses and an internship arranged to provide on-the-job experience. An implementation strategy and timetable is provided.

National Association for Environmental Education

**Title** TEACHER'S GUIDE TO AQUATIC STUDY FOR CISPUS ENVIRONMENTAL LEARNING CENTER

**Author** John F. Scarola **Date of Completion** May 1978

**Institution** Central Washington University

**Department or Program** Individualized Studies (Environmental Studies)

**Thesis Advisor** Edward Harrington

**Address of Author** Twin Harbors State Park, Westport, WA 98595

**Where Full Thesis is Available** Central Washington University Library

**Abstract** (Single space, this side only)

This paper presents a guide to teaching aquatic study at Cispus Environmental Learning Center. The guide was designed to assist teachers plan and implement outdoor, water-study learning experiences for fifth and sixth grade students at Cispus. The guide includes: 1) description and map of the Cispus aquatic study area, 2) account of the aquatic natural history of the Cispus study area, and 3) sample learning activities that guide children to discover the aquatic environment for themselves.

Recommendations include developing additional learning activities in aquatic study.

# 6: Resources, Administration & Others

Title STATUS OF ENVIRONMENTAL EDUCATION PROGRAMS IN PUBLIC SCHOOL DISTRICTS OF THE COMMONWEALTH OF PENNSYLVANIA

National Association for Environmental Education

Author Jeanne Ann Ashley Date of Completion April 1974

Institution Slippery Rock State College

Department or Program School of Health, Physical Education & Recreation

Thesis Advisor Dr. Craig C. Chase

Address of Author

Where Full Thesis is Available Slippery Rock State College

**Abstract** (Single space, this side only)

The 505 public school districts in Pennsylvania were surveyed by questionnaire to determine the extent and nature of environmental education (EE) programs that are a part of the total school program. Returns were received from 238 districts. More that 53% of the school districts indicate little or no EE involvement by not returning the questionnaire. Only 17% (85) of the 505 school districts provide EE on a K-12 interdisciplinary basis. One hundred thirty-six districts, while not offering an interdisciplinary program, do indicate varying levels of involvement. The science, elementary, and social studies teachers are responsible for providing EE for those 136 districts. Thirty-one % of the 79 examples of Teacher/Student developed curriculum materials dealt with environmental study areas. One hundred twenty-three districts used environmental study areas as a part of their EE program. One-third of the districts reported use of interdisciplinary courses and an environmental community action emphasis.

Title Outdoor Recreation Participation Levels With Cohort Analysis.

Author Duane Roy Dippon Date of Completion August 1977

Institution Purdue University, West Lafayette, IN 47907

Department or Program Forestry & Natural Resources

Thesis Advisor Joseph T. O'Leary

Address of Author University of Arkansas - Monticello, Forestry Bldg.

Monticello, Arkansas 71655

Where Full Thesis is Available Library, Life Science Building,

Purdue University, West Lafayette, Indiana 47907

**Abstract** (Single space, this side only)

To compete for federal matching funds for recreation development from the Land and Water Conservation Fund, the Federal Bureau of Outdoor Recreation requires each state to submit a comprehensive outdoor recreation development plan. The BOR stipulates that the plan include forecasts which provide a 15 year planning horizon. The forecasts are necessary for providing the data with which to determine the public's needs and desires for outdoor recreation.

There are several apparent problems which have reduced the effectiveness of existing models. The personal expressiveness of recreation activity is the primary hinderance. The conceptual meaning of leisure activity and the measurement of enjoyment or the value derived from a particular activity are difficult to measure. Without a well defined base, the planning and prediction methodologies may be inefficient or inaccurate.

The forecasts are formulated to aid the municipal, county or regional planner in assessing the particular needs of the people in his jurisdiction. Forecasts based on regional data will best serve to model the special qualities which differentiate regions and cause them to have distinct needs. In an attempt to model the outdoor recreation system on a regional basis, two approaches were selected. The first utilizes regression analysis and the second utilizes cohort analysis.

Different combinations of independent variables were selected to be used in either the single equation model, the two equation model or both. The single equation model attempts to explain participation levels by both participants and non-participants. The two equation model divides the system into two parts: differences between the participant and the non-participant and the differences between participants who recreate,

National Association for Environmental Education

Title "The Role of the Environmental Education Consultant in an Urban Setting: Toledo, Ohio"

Author B. Diane Boyd Date of Completion 8-77

Institution The University of Michigan

Department or Program Environmental Education

Thesis Advisor Dr. William B. Stapp

Address of Author The University of Michigan School of Natural Resources
Ann Arbor, Michigan 48109

Where Full Thesis is Available same address as above

Abstract (Single space, this side only)

The work is a practicum which summarizes my work as an environmental education consultant to the Toledo School System. The objective was to work with a team of consultants to educate the city by working through the school system. Once aware of existing environmental values, it was hoped that improved environmental behavior would result. My practicum focuses upon my efforts with Jones School, a middle school in the city. After meeting with teachers, students, parents and community leaders, environmentally related projects were developed and implemented. The account of planning, problems encountered and results is documented. The projects are listed individually with each one's objective and ensuing activity.

Environmental Education

Title A BIBLIOMETRIC ANALYSIS OF THE LITERATURE OF ENVIRONMENTAL EDUCATION

Author Ronald W. Force Date of Completion 1975

Institution The Ohio State University

Department or Program Natural Resources

Thesis Advisor Dr. Carl Johnson

Address of Author 214 Hardy Way, Worthington, Ohio 43805

Where Full Thesis is Available Ohio State University Main Library, Special Material, 1858 Neil Ave., Columbus, Ohio 43210

Abstract (Single space, this side only)

There are many ways the structure of a discipline can be analyzed:

1. Historically, showing development of ideas over time;
2. By schools of thought, stemming from personalitiies or institutions;
3. By its social or cultural nileu;
4. By its methodology;
5. By its means and channels of communications.

In most academic disciplines, the primary form of formal communication is the publication. By analysis of the structure and characteristics of the literature of the field, it can be assumed that one may also ascertain the structure of knowledge in that field. A knowledge of the structure and trends in a discipline is desirable to provide an empirical frame of reference for teaching and research in that discipline.

In addition, a knowledge of the communication structure is essential for those engaged in the collection, organization, and distribution of information about that discipline (librarians and information scientists).

Traditionally, evaluation of formal communications have been qualitative, for example, selective bibliographies and critical reviews which deal with the content of a literature on a subjective basis. For the last thirty years, however, there have been developed under the heading of "information science ", formalized procedures for the analysis of the structures and relationships among formal, published communications. These techniques are generally known as "statistical bibliography" or "bibliometrics". As Pritchard defines the term, bibliometrics is "the application of mathematics and stastical methods to books and other media of communications".

**Title** A Study of Personal Participation in Action for Environmental Quality

**Author** Mary C. Forrest **Date of Completion** May, 1976

**Institution** University of Wisconsin

**Department or Program** Dept. of Agricultural Journalism, Environmental Communications Program

**Thesis Advisor** Lloyd Bostian

**Address of Author** 724 W. Lakeside, Madison, WI 53715

**Where Full Thesis is Available** Advisor's office, Dept. of Ag. Journ. Library, 440 Henry Hall, University of Wisconsin, Madison, WI 53706

**Abstract** (Single space, this side only)

The purpose of this study was to determine the degree and type of environmental activism individuals in Madison engaged in, and relate this to their media use habits, political party identification and age. A questionnaire was mailed to a random sample of 400 Madison residents in the fall of 1972, asking them about their political participation and household activism for environmental quality, as well as the other aforementioned variables. Fifty-seven percent of the sample responded. Four hypotheses were tested: (1) The relationship between an individuals' household activism and political participation for environmental quality would be positive; (2) The relationship between individuals' household and political activism and extent of mass media use and especially environmental media would be positive; (3) Democratic and Independent respondents would be more environmentally active politically and in the household than Republicans; and (4) Individuals under 35 would be more environmentally active politically and in the household than those over 35. The first hypothesis was partially supported: household activists also engaged in political activism. The second hypothesis was partially supported: the relationship between mass media and household activism was positive for only two variables; no significant relationship between political participation and mass media use; relationship between environmental media and political participation was positive but not significant for household activism. The third hypothesis was partially supported: Democrats were significantly more politically active than Independents or Republicans, but not for household activism. The fourth hypothesis was partially supported: younger respondents were significantly more politically active, although household activism varied. Between 1/4 and 1/3 of the 230 respondents were environmentally active politically and in their households. Political participation was a more reliable indicator of activism than household activism. Generally, mass media use had no relation to activism although specialized environmental media use was related to activism. The study was designed to assess behavior rather than individuals' attitudes about environmental quality so no conclusions may be made regarding why individuals were or were not environmentally active.

NAEE - Thesis Reports

National Association for Environmental Education

**Title** ASSESSING REGIONAL MEETING PARTICIPANT'S OPINIONS ON ENVIRONMENTAL EDUCATION IPMLEMENTATION STRATEGIES FOR OHIO

**Author** Michael Jerome Mann **Date of Completion** 1977

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Professor Mary Lynne Bowman

**Address of Author**

**Where Full Thesis is Available** Ohio State University Main Library, Special Materials, 1858 Neil Ave., Columbus, Ohio43210

**Abstract** (Single space, this side only)

The Ohio Academy of Science (OAS) Environmental Education Committee held twelve regional education meetings in Ohio, from April through June, 1976, to seek consensus on the committee's proposed definition, goal and objectives for environmental education and solicit strategies to achieve those goals and objectives.

The writer designed an instrument, in the form of a questionnaire, which was administered at the regional meetings to document the above input.

Five hundred sixty-four (564) meeting participants, representing a broad spectrum of Ohioans, responded to the research instrument.

Participants highly supported the OAS EE Committee's proposed definition, goal and objectives for environmental education and the need for structed coordination of environmental education efforts in Ohio, woth emphasis at the state and regional levels.

Of the choices provided in the instrument, most participants thought an "already existing governmental agency" or an "inter-agency governmental body" could best coordinate environmental education in Ohio, and a newly authorized governmental agency" would provide the poorest way of coordinating environmental education in Ohio.

National Association for Environmental Education

Title ENVIRONMENTAL IMPACT OF THE HANFORD OPERATIONS

Author Delos Jan Mettler Date of Completion May 1976

Institution Central Washington University

Department or Program Individualized Studies (Physics)

Thesis Advisor Robert Mitchell

Address of Author Route 2, Box 162, Ellensburg, WA 98926

Where Full Thesis is Available Central Washington University Library

Abstract (Single space, this side only)

This paper is a research of Hanford operations. The result of this research was a listing and short summary of articles pertaining to the environmental impact of the reactor operations at Hanford. Articles selected for this bibliography were chosen on the basis of their suitability for high school age students and usefulness as source material in a high school unit on environmental science. The usefulness of the material was demonstrated by outling a sample unit on the environmental impact of the Hanford operations.

National Association for Environmental Education

Title RESOURCE RECOVERY IN A RURAL COMMUNITY

Author Judith Lynn Parson Date of Completion April 1977

Institution Central Washington University

Department or Program Individualized Studies (Environmental Studies)

Thesis Advisor George Macinko

Address of Author P.O. Box 171, Cle Elum, WA 98922

Where Full Thesis is Available Central Washington University Library

Abstract (Single space, this side only)

The case history of a "Resource Recovery Project" in Kittitas County, Washington, September 1974 - September 1975 will be examined in this thesis. The project superimposed handsorting of a mixed municipal solid waste on a refuse transfer system. The nature of the endeavor and the difficulties encountered will be documented, analyzed and briefly related to national trends and problems in rural resource recovery. The analysis forms the basis for the recommendation of an alternative recovery system, source separation of recyclables.

National Association for Environmental Education

**Title** A SURVEY OF THE ADULT ENVIRONMENTAL EDUCATION COURSES OFFERED BY THE OHIO PUBLIC SCHOOL SYSTEM

**Author** Henry Ludwig Schulte, Jr. **Date of Completion** 1972

**Institution** The Ohio State University

**Department or Program** Natural Resources

**Thesis Advisor** Dr. Robert Roth

**Address of Author** 455 East Torrence, Columbus, Ohio 43214

**Where Full Thesis is Available** Ohio State University MAin Library, Special Materials, 1858 Neil Ave., Columbus, Ohio 43210

**Abstract** (Single space, this side only)

...In the interest of providing good environmental education for Ohio's adults, the State Department of Education desired base-line information about the environmental education courses offered for adults in the Ohio public school system. This survey attempts to provide that information.

The Problem

To identify at the adult education level the environmental education courses and their related attributes in Ohio public schools.

Subproblems

1. To ascertain present course organization.
2. To ascertain present course content.
3. To determine possible future course content.
4. To determine whether or not a prepared guide is required.
5. To solicit topic areas for inclusion in a guide.
6. To discover the problems preventing initiation of an environmental education course.

National Association for Environmental Education

**Title** EVALUATION AND IMPACT OF PLANNING AND DEVELOPMENT UNDER THE WASHINGTON STATE SHORELINE MANAGEMENT ACT

**Author** Donald S. Skon[illegible] **Date of Completion** August 1974

**Institution** Central Washington University

**Department or Program** Individualized Studies (Geography)

**Thesis Advisor** Kenneth A. Hammond

**Address of Author** Route 1, Box 3T, Wapato, WA 98951

**Where Full Thesis is Available** Central Washington University Library

**Abstract** (Single space, this side only)

The Shoreline Management Act of 1971, ballot proposition 43B, was approved by the voters of the State of Washington on November 7, 1972. The Act is designed to prevent uncoordinated and piecemeal development of the shorelines in Washington State.

This study focuses on the impact of the Shoreline Management Act on development of the shorelines. Emphasis is placed on the non-development nature and intent of the Act. Included is a sample study of implementation of the Act under the Guidelines.

Title THE EFFECTS OF DISPERSED RECREATIONAL ACTIVITIES ON THE MICROBIOLOGICAL QUALITY OF FOREST SURFACE WATERS

Author Kevin J. Varness Date of Completion August 1976

Institution Central Washington University

Department or Program Biology

Thesis Advisor Robert Pacha

Address of Author P. O. Box 706, Blaine, WA 98230

Where Full Thesis is Available Central Washington University Library

Abstract (Single space, this side only)

Microbiological water quality in the Greenwater River watershed was examined to investigate the influence of heavy motorized camping in an area with no sanitary facilities. While surface water quality was high, dramatic increases of indicator bacteria below heavily used camping areas suggest that potential health hazards exist during periods of human use.

Membrane-filter delayed incubation techniques were evaluated for use during periods of intensive water sampling. Comparison of these techniques with standard procedures indicate delayed techniques for total and fecal coliform determinations are unreliable, only fecal streptococcus determinations proved reliable.

Title AN INVESTIGATION OF THE STATUS OF LAND USE PLANNING EDUCATION IN ENVIRONMENTAL EDUCATION MASTER PLANS

National Association for Environmental Education

Author Debra Devers Walton Date of Completion 1976

Institution The Ohio State University

Department or Program Natural Resources

Thesis Advisor Dr. Robert Roth

Address of Author 5999 Sawmill Road, Dublin, Ohio 43017

Where Full Thesis is Available Ohio State University Main Library, Special MAterials, 1858 Neil Ave., Columbus, Ohio 43210

Abstract (Single space, this side only)

Problem Statement:

To determine the status of land use planning education in statewide comprehensive environmental education master plans.

Subproblems:

1. To develop a method for increasing the awareness of the need for land use planning education;
2. To identify materials of use in materials evaluation and program planning;
3. To make recommendations concerning land use planning education development.

National Association for Environmental Education

Title Human Responses to Silvicultural Practices

Author Jimmie L. Yeiser Date of Completion Dec. 1976

Institution University of Kentucky

Department or Program Department of Forestry

Thesis Advisor Dr. Charles L. Schilling

Address of Author Department of Forestry, Texas A & M University

Where Full Thesis is Available University of Kentucky Library

Abstract (Single space, this side only)

The Galvanic Skin Response (GSR) was used to measure emotional responses of 16 subjects in each forestry, conservation, and control group as evoked by scenes and terms of forest management practices. Responses were also examined in relation to rural-urban backgrounds and personality profiles. Responses to control terms suggested that words may acquire special meanings when restricted to the natural resource realm. Results of analysis of variance indicated that the terms cull tree and thinning were significant sources of variation among groups and among rural-urban background categories. $F_{max}$-test showed other stimuli possessed significant potentials of emotion. Comparison of personality profiles indicated forestry subjects were significantly more practical and less radical than subjects in the conservation group and significantly more practical, less radical, and less dominant than subjects in the control group. No significant differences were observed among personalities of subjects in the control and conservation groups. Personality traits, dominance, practicality, radicalism and all possible combinations thereof were related by regression to the GSRs. Practicality, radicalism, and practicality and radicalism were significantly related to the term cull tree; practicality and radicalism was also significantly related to clearcut. Data obtained through personal interviews provided explanation of stimuli meaning and significance.